Autism: an interesting dietary case history

Mabel Blades

Background

Autism

Children who suffer from the condition of autism have a range of symptoms, from which they suffer to varying degrees. The main symptoms are that the child tends to be inward-looking, often does not communicate, does not like to vary from a well-known routine, and appears to be indifferent to the feelings of others. Their play is often solitary, and this, combined with the other effects of the disorder, can have a devastating effect on the family. In a previous issue of Nutrition & Food Science, Dilys Wells gave a good overview of autism, and further information on the condition can be obtained from the Autism Research Unit at the University of Sunderland[1] and the National Autistic Society[2].

Children with autism have a range of symptoms and are affected to different degrees. Indeed, some individuals may exhibit particular gifts, such as those of Stephen Wiltshire, who is able to make remarkable drawings of buildings. They do, however, pose considerable challenges for their parents, siblings and carers. Persuading children to eat a balanced diet is one of these challenges, as any variation from the normal routine of foods can be met with tantrums.

Food intolerance

Awareness of food and the effect it has on the body has increased exponentially over the last decade. Included in this knowledge is an understanding of food allergy and food intolerance. Conditions such as asthma, Crohn’s disease, exzema and numerous other conditions are well documented to have been due, in some cases, to food intolerance. While some orthodox clinicians remain sceptical about food intolerance there is an increasing number of complementary practitioners who practise in this area and numerous individuals who have experienced benefits.

It has also been postulated that autism can be assisted by exclusion diets such as milk free and wheat free diets. While there are no large numbers of cases under investigation there have been benefits attributed to individuals by such diets.

In November 1999, the Allergy Research Foundation[3] held a meeting in London entitled “Autism: an allergic disorder”. At this meeting, the relationship of the onset of...
Role of the dietitian

State-registered dietitians can be employed within the National Health Service to advise individuals upon a therapeutic diet aimed to assist their medical condition. Commonly, advice is given by dietitians upon disorders such as diabetes, coeliac disease and raised lipid levels, among a list of numerous others.

Dietitians are trained, during a degree course, to give advice to all age groups upon therapeutic diets as well as to advise on good nutrition to promote health. They work closely with doctors and nurses both in hospital and in community settings. Clinics are held by dietitians in hospitals, health centres, specialist units such as diabetes centres and the surgeries of doctors in towns and villages.

Case history

As a freelance nutritionist and state-registered dietitian, I see patients in a number of clinic settings. One of those clinic settings is at GP surgeries.

At one of the clinics in a small town in Northamptonshire, “X”, a six-year-old boy diagnosed with autism for over three years, was referred to me by his GP after his mother had attended a parents group for autistic children and had visited the GP asking for advice. It was fortunate that I had recently started clinics at the surgery and was well versed in the area of food intolerance and food allergy, as I had both initiated and evaluated clinics in this area of dietetics for over 20 years.

While I believe that diets for food intolerances can have great benefits in some circumstances, I believe that they should be correctly executed by a dietitian or someone trained in the area and that they should be correctly balanced (especially in the case of a child where inadequacies can compromise growth), carefully explained to fit in with the family’s circumstances and lifestyle and regularly reviewed and evaluated. The outcomes should also be communicated to the doctor looking after the patient.

The patient’s mother relayed the advice given at a parents meeting she had attended, for using a milk free and gluten free diet for autism and requested that I advise her on how to prepare such a diet for her son.

Dietary history of X

This was extremely limited and he would only eat:

- white bread;
- crisps;
- yogurt;
- chocolate;
- milk; and
- chips from certain restaurants.

Breakfast consisted of lemon curd sandwiches with polyunsaturated margarine and cola, orange juice or lemonade.

Mid-morning snack consisted of cracker biscuit and jam, blackcurrant drink or orange juice.

Lunch was very similar to breakfast, and consisted of lemon curd sandwiches with polyunsaturated margarine and cola, orange juice or lemonade and, possibly, a yogurt. If at school, this was taken as a packed lunch.

Mid-afternoon snack consisted of cracker biscuit and jam, blackcurrant drink or orange juice.

Tea was very similar to breakfast and lunch and consisted of lemon curd sandwiches with polyunsaturated margarine and cola, orange juice or lemonade and, possibly, a yogurt.

Supper, when taken, consisted of chips and a banana.

A multivitamin and mineral preparation was also being taken, at the behest of his mother.

Foods had to be of a familiar brand and type and crisps, yogurt or biscuits would not even be tried if of a different type.

Any attempt to entice him to try a different food would be met with a tantrum.

Nutritional adequacy

While his diet was not ideal, it was adequate nutritionally, with the supplements of vitamins and minerals providing extra iron. His weight and height were within normal limits.

To further restrict his diet by excluding bread, milk and milk products as originally requested by his mother not only would have
led to behaviour difficulties when these foods were denied, but also would have severely compromised the nutritional adequacy of his diet regarding energy, calcium and protein.

Therefore, I discussed my reservations with his mother who was adamant that she would like to try a diet for him.

As research on food allergies and intolerances which present as gastrointestinal symptoms has shown, in some instances, these may be due to unbalanced population of gastrointestinal flora. Therefore, I suggested that a probiotic product may be of use in assisting with any allergy or intolerance that was present. Also, this would prevent having to use a milk- or wheat-free diet. Types of probiotic products were suggested and an initial trial of two weeks was recommended. It was also requested that careful records of the behaviour of X be kept by the mother. This was agreed to as a trial by his mother.

Probiotics
The mother found great difficulty in getting her son to actually try a probiotic, but eventually found that one of the liquid probiotics could be easily disguised in his orange juice drink.

Almost instantly, his mother reported that he was taking the probiotic happily in his drink of orange and that his behaviour had improved to some extent – she felt he was more aware and also he began to try foods which he had previously refused.

While sceptical of such an outcome, I was delighted to hear of the improvement especially when it was substantiated by school records. Obviously, it was an improvement, not a cure. This improvement was, however, sustained.

Withdrawal of probiotic
After a period of two months, I suggested that the probiotic be withdrawn, and the behaviour of X monitored. This was suggested as the improvement may have been merely a coincidence.

Again, the mother kept careful records which surprisingly showed that, after only four days, his behaviour regressed back to the point it was when we first met.

Outcome
X was put back on to a probiotic, his behaviour improved again and he again started to eat a wider variety of foods, including a roast dinner.

The parents were so delighted with their son and the effect his diet had upon his behaviour that they wrote an article for their local support group’s newsletter.

Conclusions
While X appeared to obtain significant benefits from the alterations in his diet, much more extensive research needs to be undertaken on this subject.

The role of diet with particular use of probiotics and food exclusion should be examined in autism, and data collected on individuals. Properly monitored trials should also be set up.

Additionally, the role of diet in autism can be an area where a dietician can offer help to ensure that diets are properly balanced.

Notes
1 Autism Research Unit School of Health Sciences, University of Sunderland, Sunderland SR2 7EE.
2 The National Autistic Society, 393 City Rd, London EC1V 1NG.
3 Allergy Research Foundation, Middlesex Hospital, London W1N 8AA.

Please note that, due to time constraints and being asked to write this article over Christmas, these addresses have not been verified.